



INTRODUCTION

In the late 1980s, the U.S. Government recognized the critical role of Federally-coordinated research in understanding global change and its impacts and informing responses to it. The U.S. Global Change Research Program (USGCRP) was established by a Presidential Initiative in 1989 as a confederation of 13 Federal agencies that conduct or use research on climate and global change (Figure 1). USGCRP was codified by Congress in the [Global Change Research Act](#) (GCRA) of 1990¹ with a mandate to:

“assist the Nation and the world to understand, assess, predict, and respond to human-induced and natural processes of global change.”

Research conducted by USGCRP agencies covers a range of topics in global change science and provides the basis for scientific assessment and decision support activities that help people and organizations across the country manage their assets and resources under conditions of global change. Each of the USGCRP’s member agencies has its own mission, mandate, and capabilities; USGCRP facilitates collaboration and cooperation among these agencies and works to maximize efficiencies in Federal global change research. Together, the USGCRP member agencies, with participation from another 20 Federal agencies, deliver products and conduct activities mandated by the GCRA.

As part of its mandate, USGCRP provides communities, businesses, and the public sector with access to authoritative data and information resources needed to evaluate and respond to the risks and opportunities presented by global change. For example, many organizations use observations of precipitation and soil moisture collected by USGCRP member agencies to help manage water resources, agricultural operations, and wildfire risk. Others use observations and projections of storm surge and sea level rise for infrastructure and emergency response planning in coastal regions. Combining observations and modeling capabilities from several USGCRP member agencies leads to improvements in projections of future climate conditions used for long-term planning and risk management in areas such as defense, reinsurance, and infrastructure design.

USGCRP’s mandate includes leveraging U.S. and international observations, modeling, research, and assessment capabilities to accomplish Program goals and priorities (see Supporting International Global Change Science). As part of this mandate, USGCRP supports activities related to international assessments, including assisting in the coordination of government reviews of reports produced by the Intergovernmental Panel on Climate Change, the Intergovernmental Platform on Biodiversity and Economic Services, the Arctic

Council’s Arctic Monitoring and Assessment Program, and the Montreal Protocol’s Scientific Assessment Panel. These activities are done in close collaboration with the State Department, which typically serves as the focal point for the Federal government’s engagement with these international organizations.

The FY2018–19 edition of USGCRP’s annual report to Congress, *Our Changing Planet*, responds to the GCRA mandate to provide an overview of the Program’s progress in delivering on its strategic goals (as outlined in USGCRP’s [Strategic Plan](#) and its [2017 update](#)) as well as a summary of agency expenditures under USGCRP’s budget crosscut (see Budgetary Information). USGCRP’s scope is defined as the range of agency programs implemented with funds included in the budget crosscut, and the efforts described in this document represent only a small subset of the overall accomplishments of the Program. The highlighted efforts represent inter-agency collaborations in FY2018–19 that rely on coordinated investments of two or more member agencies. Results from single agency investments that underpin interagency accomplishments are not typically covered in this annual report. Appendix I. USGCRP Member Agencies summarizes the principal focus areas related to global change research for each USGCRP member agency.

Figure 1. U.S. Global Change Research Program Member Agencies

